(19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 16 June 2005 (16.06.2005)

(10) International Publication Number WO 2005/054951 A2

(51) International Patent Classification7:

G03F 7/00

(21) International Application Number:

PCT/JP2004/017534

(22) International Filing Date:

18 November 2004 (18.11.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

JP 2003-401563 1 December 2003 (01.12.2003) 2004-265693 13 September 2004 (13.09.2004)

(71) Applicant (for all designated States except US): TOKYO OHKA KOGYO CO., LTD. [JP/JP]; 150, Nakamaruko, Nakahara-ku, Kawasaki-shi, Kanagawa 211-0012 (JP).

(72) Inventors: and

Inventors/Applicants (for US only): WASHIO, Yasushi [JP/JP]; c/o TOKYO OHKA KOGYO CO., LTD., 150, Nakamaruko, Nakahara-ku, Kawasaki-shi, Kanagawa 211-0012 (JP). SAITO, Koji [JP/JP]; c/o TOKYO OHKA KOGYO CO., LTD., 150, Nakamaruko, Nakahara-ku, Kawasaki-shi, Kanagawa 211-0012 (JP).

(74) Agents: TANAI, Sumio et al.; 2-3-1, Yacsu, Chuo-ku,, Tokyo 104-8453 (JP).

(81) Designated States (unless otherwise indicated, for every

kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BI?, BJ, CI?, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: THICK FILM PHOTORESIST COMPOSITION AND METHOD OF FORMING RESIST PATTERN

(57) Abstract: A negative thick film photoresist composition with improved alkali developability is provided. The composition comprises: (A) a resin component containing (a) from 61 to 90% by weight of a structural unit derived from a cyclic alkyl (meth)acrylate ester, and (b) a structural unit derived from a radical polymerizable compound containing a hydroxyl group, (B) a polymerizable compound containing at least one ethylenic unsaturated double bond, (C) a photopolymerization initiator, and (D) an organic solvent.